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ENVIRONMENTAL SITE EVALUATION
BRA PARCEL B
BOSTON, MASSACHUSETTS

PREPARED FOR:
Asian Community Development Corporation
Boston, Massachusetts

BOSTON
PUBLIC
LIBRARY

PREPARED BY:
GZA GeoEnvironmental, Inc.
Newton Upper Falls, Massachusetts

July 1991
File No. 12535

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July 18, 1991
File No. 12535-C,PC

Ms. Carol Lee
Asian Community Development Corporation
360-B Tremont Street
Boston, Massachusetts 02116

Re: Preliminary Environmental Site Assessment
BRA Parcel B
Boston, Massachusetts

Dear Ms. Lee:

In accordance with our proposal dated January 4, 1991 GZA GeoEnvironmental, Inc. (GZA) has conducted a preliminary site assessment of the BRA Parcel B in Boston, Massachusetts. This report was prepared in accordance with the Terms and Conditions in Appendix A.

This report describes the conditions observed by GZA at the study site. The text presents the results of the site reconnaissance, site history research, regulatory agency file review, subsurface exploration program, and chemical screening and analyses of soil and groundwater samples from the site. In conclusion, the report provides GZA's opinion regarding the presence of hazardous materials and oil in the soil and groundwater at the site.

We have appreciated the opportunity to work with you on this project.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

James V. Errico
Project Reviewer/Associate Principal

Frank Grynkewicz
Project Engineer/Manager

Walter E. Jaworski
Senior Principal

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1.00 INTRODUCTION

In accordance with our proposal dated May 16, 1991, GZA GeoEnvironmental, Inc. (GZA) has completed an environmental site evaluation of the BRA Parcel B site in Boston, Massachusetts. The purpose of this evaluation was to render an opinion on the presence of hazardous material or oil in soil and groundwater at the site, within the meaning of Massachusetts General Laws, Chapter 21E. The scope of services included:

- a site visit;
- a review of site history;
- contact with certain local and state officials, and review of certain state and federal files and lists regarding possible environmental concerns at or near the subject site;
- subsurface explorations, in the form of test borings and groundwater monitoring well installations;
- sampling of the groundwater monitoring wells;
- limited screening/analysis of the soil and groundwater samples at GZA's Newton Environmental Chemistry Laboratory (ECL); and
- the preparation of this report containing an opinion as to the presence of hazardous material or oil in the soil or groundwater at the site.

This report has been prepared in accordance with the Limitations and Statement of Terms and Conditions presented in Appendix A.

2.00 BACKGROUND

The following paragraphs describe the physical layout of the site, its hydrogeologic setting and the history of site use.

2.10 SITE DESCRIPTION

Parcel B consists of approximately 38,025 square feet of land located at 884-888 Washington Street in the Chinatown section of Boston; a Site Locus is provided on Figure 1. At the time of this study, the site was occupied by an abandoned six-story building, a small playground, an unpaved parking area, a small garden and grass. A detailed description of the site is presented in Section 4.00.

Parcel B is bounded on the west by Washington Street, across which is Josiah Quincy High School; on the north by Oak Street and an adjacent parking lot; on the east by Maple Place and small apartment buildings, and on the south by Pine Street and BRA Parcel A. Tufts/New England Medical Center occupies much of the area immediately north of the site, and a below grade section of the Massachusetts Turnpike is located near the south end of Parcel A.

2.20 TOPOGRAPHY AND DRAINAGE

According to the U.S. Geological Survey topographic quadrangle map of the area (Boston South Quadrangle, 1979), Parcel B is located 1 mile southwest of Boston Inner Harbor and 1/2 mile due west of the Fort Point Channel. Based on a preliminary review of the area's topography and location, GZA anticipates that regional groundwater flow is generally to the northeast. However, localized flow directions in the vicinity of the site may vary as a result of underground utilities (e.g., storm drains, sewers, utility conduits) or heterogeneous subsurface conditions.

Subsequent references to upgradient or downgradient directions in relation to the site are relative to GZA's anticipated northeasterly direction of groundwater flow.

2.30 SITE HISTORY

To obtain information regarding the history of the site, GZA contacted the Boston Redevelopment Authority (BRA), Boston Assessor's Office, Building Department, Public Library, and Sanborn Mapping & Geographical Information Service.

Sanborn Maps dating from 1867 provided the following information (see Appendix B): As of 1867, the footprint of the current building was occupied by an armory; the rest of the site appears to have been small commercial properties. By 1885 the buildings along Washington Street housed furniture and carpet dealers and a roller skating rink; the buildings in the northeast corner of the site are labelled "tenements." The 1895 map shows the Washington Street building partially converted to a Salvation Army hotel, with furniture dealers and tenements still present. The 1909 map indicates "elevated railroad tracks" running behind the Salvation Army hotel. By 1929, the

buildings along Pine Street (southeast corner of the site) were replaced by the Rufus F. Dawes Hotel and the Salvation Army appears to have moved out of the Washington Street building. No significant changes appear to have occurred between 1929 and 1951, when the Dawes Hotel and elevated railroad were still recorded at the site. The 1989 map shows the site much as it is today except that the elevated railroad tracks have been removed.

Assessors Office records list current property owners as Edward Mascoll et al (884 Washington Street) and Samuel James et al (888 Washington Street). City directories show that the building was occupied by a variety of businesses (appliance stores, pawnbrokers, furniture stores) from 1933 to 1978, when it was taken over by the Chinatown Boys Club.

Building Department records indicate that the existing building includes 882 to 892 Washington Street. Building permits dating back to 1916 reflect both retail and manufacturing activity as wells as a number of minor structural changes. In 1955, a company called Cambridge Engraving either sold or manufactured signs at 888-890 Washington Street. In 1972 and 1976, permits were issued to the BRA to bring the building up to code standards for the Boys' Club of Chinatown. As of 1987, the owner of 882-892 Washington was listed as Teradyne Corporation. GZA did not observe any demolition permits in the Building Department records, although the buildings along Pine Street and Oak Street were destroyed sometime between 1959 and 1989 according to the Sanborn maps.

3.00 REGULATORY INFORMATION CONCERNING SITE AND VICINITY

Certain state and local agencies were contacted and certain state and federal files and lists reviewed to assess whether hazardous materials may have been released into the soil or groundwater at or near the site. Some of the information was developed by telephone contact; other information is the result of direct interviews and visits. The information made available to GZA during these visits, interviews and file reviews is summarized in the following paragraphs.

3.10 LOCAL

To obtain information concerning the possible release of hazardous material or oil at or near the study site, GZA contacted the Boston Health, Fire and Water Departments and the Clerk's Office. Their records indicated no release of oil or hazardous material at the site. However, fire department personnel recalled a gasoline spill on Kneeland Street approximately two years ago.

The site is serviced by municipal water sewer and drainage lines in Washington and Pine Street, as well as electrical, gas, and telephone lines along Washington and Pine Street.

3.20 STATE

Files made available to GZA at the Massachusetts Department of Environmental Protection (DEP) Northeast Regional Office were reviewed on May 31, 1991.

The DEP Incident Response Files, Miscellaneous Files, and Spills Database (for the Northeast Region) indicated that the following incidents involving hazardous materials and petroleum products have occurred within 1/8 mile of the site:

- Medical Veterinary Building, 136 Harrison Avenue (presumed downgradient): December 4, 1987 spill of acids inside building, no floor drains affected; clean-up by Clean Harbors;
- 35 Kneeland Street (presumed downgradient): 90 gallons of No. 4 fuel oil released during tank test on June 19, 1987; clean-up by Clean Harbors; and
- Corner of Kneeland & Washington Streets (presumed downgradient of Parcel B): over 2,000 gallons of cable oil released September 9, 1989 when a contractor jackhammered into cable line; clean-up by Clean Harbors.

The DEP May 14, 1991 Site Assessment Database listed one site within 1/4 mile of Parcel B:

- New England Medical, Parcel 1-C, 810-864 Washington Street (presumed crossgradient) listed as a confirmed Phase II, non-priority site.

Additional information in the DEP Sites Files indicated that soil samples from this site (which was previously an MBTA station) were found to have slightly elevated levels of total petroleum hydrocarbon in soils.

The DEP December 31, 1990 Spills Database listed nine spills within 1/8 mile of Parcel B:

- Atlas Oil, 100 Shawmut Avenue: December 21, 1983 release of 10 gallons of No. 4 fuel oil, clean-up by Pollution Control Unlimited (PCU);
- Exxon, Kneeland Street: February 10, 1984 release of 50 gallons of jet fuel, clean-up by PCU;

- Tufts, 136 Harrison Avenue: November 3, 1984 release of 1-gallon of toluene, cleaned up by Keating; also December 4, 1987 release of 1-liter acids, clean-up by Clean Harbors;
- New England Medical Center, 35 Kneeland Street: June 19, 1987 release of 90 gallons of No. 4 fuel oil, clean-up by Clean Harbors;
- Beco, unlisted number on Shawmut Avenue: August 4, 1987 release of unknown quantity transformer oil, no cleanup contractor listed;
- Boston University, Harrison Avenue: December 14, 1987 release of unknown quantity of unknown chemicals, clean-up by Advanced Em. Tech. Company;
- Boston Edison, corner Tremont & Kneeland Streets: September 19, 1989 release of 1,000 gallons of cable oil, clean-up by Clean Harbors; also October 31, 1989 release of unknown quantity of cable oil, cleaned up by Clean Harbors;
- unidentified location on Kneeland Street: September 23, 1989 release of unidentified quantity of gasoline, clean-up by Fire Department/DPW
- Munson Transport, unlisted number on Kneeland Street: July 7, 1990 release of unknown quantity of diesel fuel, no cleanup contractor listed;

Pertinent sections of the master index of the DEP list are attached in Appendix C.

GZA also reviewed the DEP Water Supply Protection Atlas, which did not indicate the presence of the following potential sources of environmental contamination within 1/4 mile of Parcel B: landfills, salt storage sites, surface impoundments, junkyards, or hazardous waste sites. The Atlas additionally indicated no public water supply wells or reservoirs within 1/4 mile of the site.

3.30 FEDERAL

GZA's review of the EPA RCRA list of hazardous waste generators, transporters and treatment/storage/disposal facilities registered under the Resource Conservation and Recovery Act (RCRA) identified nine such companies within 1/4 mile of Parcel B; of these, seven were listed as small quantity generators and two (New England Medical Center and Tufts University Medical School) were listed as large quantity generators. The hazardous waste generators in the vicinity of the subject site are listed in Table 1.

The EPA March 1, 1991 Facility Index System (FINDS) list of companies involved with any of 12 EPA monitoring programs indicated nine such companies within 1/8 mile of Parcel B; these companies are also listed on Table 1.

The February 26, 1991 Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS) list of sites for possible investigation under the Federal Superfund program indicated no listings within 1/8 mile of Parcel B.

Additionally, the 1981 and 1986-1990 EPA lists of companies with National Pollutant Discharge Elimination System (NPDES) permits were reviewed. They showed no companies in the vicinity of the site with NPDES permits.

EPA's Emergency Response Notification System (ERNS) list dated February 22, 1991 of spills reported to the EPA did not indicate any spills reported at or within 1/8 mile of Parcel B. EPA's February 25, 1991 National Priority List of sites in Massachusetts did not include any sites in Boston.

4.00 SITE RECONNAISSANCE

On May 21, 1991, GZA geologist Amy Sheridan visited the site to observe surficial conditions for evidence of the presence of hazardous materials or oil. Parcel B contains a six-story masonry building along Washington Street, a grassy area and small communal garden adjacent to the north side of the building, an unpaved gravel parking lot along Pine Street, and a partially paved Boston Parks & Recreation playground on the corner of Oak Street and Maple Place. The unpaved gravel parking area was surrounded by chainlink fence; according to the parking attendant at a nearby paved parking area, the gravel lot was used by employees of Quincy School. GZA did not observe stressed vegetation or significant surficial staining in the grass or playground, nor were catch basins or surficial staining observed in the parking lot. Photographs of the site are presented in the photograph section of this report.

On June 25, 1991, GZA geologist Maurice Ponti visited the site to observe the interior of the building. Each of the floors contained one staircase and elevator shaft approximately at the center of the building and one staircase at the rear of the building. Sinks, showers and bathrooms are located near the rear corners of the structure on each floor.

The first floor contained trash, desks, broken video games, a few empty spray paint cans, some automotive paints and one empty 55-gallon drum of a degreaser. The

south side of the building appeared to have been an automotive bay or garage at one time (see photograph 2). Small isolated surficial oil and grease stains were observed on the concrete floor. No floor drains were observed. The southeast corner of the building contained one, approximately 250-gallon aboveground fuel storage tank. A 3-foot by 4-foot surficial stain was observed on the concrete floor near the tank. The rest of the floors were wood and contained broken glass, wood debris, broken furniture, printing presses, bench lathes, empty 1-gallon and 5-gallon paint cans, clothing, children's books, toys, records, ceiling tiles, and a few mattresses. Each of the sinks and bathrooms were examined and no evidence of oil or hazardous materials were observed. The sixth floor bathroom pipes appeared to have asbestos insulation around the pipes.

The basement contained a large boiler and a cinder block containment vault at the southeast corner. GZA did not have access to observe the inside of the vault at the time of the visit. The basement also contained large quantities of wood debris, glass, and broken furniture. Two, 4-inch to 6-inch-diameter pipes adjacent to the ceiling also appeared to contain asbestos insulation. No evidence of a release of oil or hazardous materials was observed in the building except for the minor floor staining and the possible asbestos insulation which appeared around a few of the pipes in the basement and the sixth floor.

5.00 FIELD EXPLORATION, SAMPLING AND ANALYTICAL PROGRAM

GZA completed a field exploration program as part of the present evaluation to assess the presence of oil or hazardous materials in soil and groundwater at the site. This program consisted of the execution of six borings, the installation of four monitoring wells, and the collection and screening analysis of soil and water samples.

To the extent feasible, exploration locations were selected to obtain soil and groundwater samples from generally upgradient and downgradient areas of the site. Boring locations were also selected so as to provide geotechnical information for the proposed site development. An Exploration Location Plan is attached as Figure 2.

5.10 SUBSURFACE EXPLORATIONS AND MONITORING WELL INSTALLATIONS

Between June 4 and 19, 1991, six borings were completed by GZA Drilling, Inc. of Brockton, Massachusetts. Hollow stem auger techniques were employed without the use of drilling water or other fluids for shallow borings; the deep borings were

advanced using drive and wash methods through overburden and a diamond bit with NX core in bedrock.

A monitoring well consisting of 10 to 15 feet of 1.5-inch-diameter PVC wellscreen attached to solid PVC riser pipe was installed in four of the borings. All PVC attachments were completed without the use of solvents or glues to prevent contamination. The wellscreen was set to span the water table encountered in the boring during drilling. A filter of clean silica sand was placed in the annular space around the wellscreen, and a bentonite clay seal was placed above this filter sand. Each well was completed with a curb box at the ground surface. Well installation details are presented on the boring logs in Appendix D.

5.20 SOIL AND WATER SAMPLING

Split spoon soil samples were obtained by Standard Penetration Tests at 5-foot intervals during the drilling operations. Soil samples were classified by the on-site geologist; boring logs developed by GZA are attached as Appendix D. A portion of each soil sample was collected in a clean glass jar, stored in an ice-packed cooler and transported to GZA's Environmental Chemistry Laboratory (ECL) for chemical screening. Undisturbed Gus method Shelby tube samples for geotechnical analyses were obtained at 25 and 35-feet in GZB-4, and at 40, 50, 60, and 70-feet in GZB-1.

On June 19 and 21, 1991, GZA personnel sampled the monitoring wells at the study site. Groundwater samples were obtained using 5-foot stainless steel bailers with Teflon ballcheck valves. A separate laboratory-cleaned bailer was used for each well to avoid cross-contamination. Three times the initial standing volume of the groundwater in the well was evacuated to remove stagnant water, and the well was allowed to recharge. Water samples were collected in hydrochloric acid preserved 40-ml vials with Teflon septa, 1-liter amber jars and in clean 8-ounce glass jars. The samples were kept cool until their delivery to GZA's ECL.

GZA measured water levels in each monitoring well with an electronic water level reader at the time of sampling. The depths to water table are indicated on the well logs in Appendix D.

5.30 CHEMICAL SCREENING OF SOIL AND WATER SAMPLES

Soil samples collected from the site were screened in GZA's laboratory for total volatile organic compounds (VOCs) using an H-Nu Model PI-101 photoionization detector (PID) with a 10.2 electron volt lamp. The PID measures relative levels of

VOCs referenced to a benzene in air standard. Although the PID screening cannot be directly used to quantify VOC concentrations or identify individual compounds, the results can serve as a relative indicator of the levels of VOCs in each sample. Laboratory PID screening results are presented on the boring logs in Appendix D, and summarized in Table 2. A discussion of the results of the screening analyses is provided in Section 6.21.

Based on PID screening results, additional chemical screening by static headspace gas chromatograph (GC) techniques was performed on selected soil samples using a Hewlett Packard Model 5890A GC. The GC screening analysis permits the tentative identification and approximate quantification of individual VOCs. GC screening results and a description of GZA's GC screening procedures for soil are included in Appendix E; results are discussed in Section 6.21, and presented in Table 3.

Water samples were also screened for VOCs using the GC and static headspace techniques. The GC screening procedures and results are presented in Appendix F; results are discussed in Section 6.22, and presented in Table 4.

In addition, water samples were screened for pH and specific conductance within 24 hours of collection. The pH is a measure of the acid or basic nature of water, and specific conductance is a measure of dissolved ions in water. An Orion Research Model EA 940 Expandable Ionanalyzer was used to measure pH and an YSI Model 34 Model Digital Conductivity Meter was used to measure specific conductivity. Results are presented in Table 4 and discussed in Section 6.22.

Selected soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH) by infrared (IR) spectroscopy. A water sample from monitoring well GZB-1 was also analyzed for TPH. TPH measures total petroleum hydrocarbon content. The IR procedures and results are included in Appendix G and results are discussed in Section 6.21 and 6.22, and presented in Table 3 and 4.

6.00 FIELD EXPLORATION AND ANALYTICAL RESULTS

The field exploration program consisted of the completion of six borings and the installation of four groundwater monitoring wells. The analytical program consisted of screening/analyses of soil and water samples. The following sections summarize the soil conditions encountered as well as the results of chemical screening of soil and water.

6.10 SUBSURFACE CONDITIONS

Soil conditions are summarized from the boring logs attached as Appendix D. Each of the borings encountered between 11 and 13.5 feet of granular fill overlying 3 to 10 feet of silt and clay, overlying 5 to 9.5 feet of olive-brown silty clay, overlying gray silty clay. Borings GZB-1 and GBZ-3 were advanced approximately 10 feet into bedrock and revealed between approximately 55 to 70 feet of gray silty clay overlying 7 to 9 feet of glacial till, overlying argillite bedrock. The depth to bedrock was between approximately 78 feet (GZB-3) and 87 feet (GZB-1) below existing grade.

6.20 RESULTS OF CHEMICAL SCREENING ANALYSES

A total of 75 soil samples and 20 groundwater samples were returned to GZA's Environmental Chemistry Laboratory in Newton, Massachusetts for chemical screening. Screening results are contained in Appendices E, F, and G. Results are summarized below.

6.21 Soil

GZA laboratory PID readings detected elevated VOCs in a total of 24 of the samples. Most of the VOCs were observed within the upper 20-22 feet of the borings. The readings ranged between 0.2 and 2.2 for samples: GZB-1,S-4; GZB-2,S-1 and S-3; GZB-3,S-1, S-8, S-16, and S-18; GZB-4,S-5; GZB-5,S-2, S-3, S-5A, S-7, S-7A; and GZB-6, S-3A, S-4, S-6, S-6A, and S-7. Elevated readings between 20 and 65 ppm were detected in soil samples GZB-1,S-2, S-3; GZB-3,S-2; GBZ-5,S-1 and S-6; and GZB-6,S-3.

Based on the PID readings, 10 soil samples were selected for GC screening. The results indicated non-detected levels in GZB-4,S-5. Trace readings of toluene, ethyl-benzene and xylenes (TEX, gasoline compounds) were indicated in GZB-3,S-1 and S-2. Trace to moderate levels of late eluting compounds were detected in GZB-2,S-1, GZB-3,S-1 and GZB-5,S-5 and S-6. Trace to high levels of variously eluting compounds were detected in GZB-1,S-1, S-3, and S-4. The pattern of the chromatogram for GZB-6,S-3 indicates the presence of an unknown petroleum distillate such as fuel oil.

Based on the GC screening results, 13 soil samples were submitted for TPH-IR analysis. The results indicated levels of total petroleum hydrocarbons between 75 ppm and 1,500 ppm for soil samples GZB-1,S-2, S-3; GZB-2,S-1; GZB-3,S-1, S-2; GZB-5,S-6; and GZB-3,S-3; TPH readings indicated none detected for GZB-1,S-4; GZB-2,S-3; GZB-3,S-3 and S-18; GZB-4,S-5; and GZB-5,S-5.

6.22 Groundwater

The pH of the groundwater was generally slightly basic and within the normal range for groundwater in New England (6.0 to 7.5). The conductivity ranged between 561 and 3,120 which is generally high for groundwater. However, based on the urban setting and the origin of most of the sediments are from marine deposits, the high conductivities may be due to residual sodium-chloride (salt) trapped within the sediments.

The GC screening results for VOCs did not detect any compounds except in GZB-1; the results indicated trace to low levels of eight early and late eluting compounds and 19 ppm of methane gas.

Based on the VOC screening results a duplicate sample from GZB-1 was analyzed for TPH compounds. The results revealed 18 ppm of PHCs.

7.00 SUMMARY AND CONCLUSIONS

An environmental site evaluation was conducted at the Parcel B site in Boston, Massachusetts. The study included a site reconnaissance, a review of site history, a review of available local, state and federal regulatory records, a limited field exploration program, and chemical screening of water and soil samples from the site.

1. Between 1867 and the middle 1980s the site contained a six story brick structure along Washington Street and two, three and four story brick structures along Pine Street and Oak Street. The structure along Washington Street served various tenants such as an armory, Salvation Army Hotel; furniture, carpet, and appliance stores; pawnbrokers; light manufacturing activities, (e.g. engraving) and a Boys Club. The building between 884 and 888 Washington Street is currently vacant. The site is currently used as a playground and basketball court (east side), and as an unpaved parking lot to the south along Pine Street.

2. Local and state records indicated no incidents involving oil or hazardous materials have occurred at the site. State records indicated nine surface releases of oil or hazardous materials occurred within 1/8 mile of the site between 1983 and the present; federal records indicated seven companies as small quantity generators and two companies as large quantity generators

within 1/4 mile of the site, but no locations near the site are listed under CERCLIS.

3. A site reconnaissance indicated no surficial evidence of a release of oil or hazardous materials except for small isolated, apparently surficial stains of oil/grease along the southeast portion of the site which are commonly observed on parking lots.

4. Subsurface conditions within the upper 15 feet of overburden consisted primarily of granular fill materials such as gravel, sand, brick, reinforced concrete, and asphalt. Reinforced concrete was encountered between 8 and 15-feet below grade at boring locations GZB-3 and GZB-5.

5. The VOCs detected in the soils were generally within the upper 15 feet of overburden and revealed trace to high levels of variously eluting compounds. Trace to low levels of early and late eluting VOC compounds were detected only in GZB-5, and trace levels of BTEX in soils sample GZB-3,S-1 and S-2.

6. Screening of soil samples indicated the presence of petroleum hydrocarbons (PHCs) ranging between less than 10 ppm and 200 ppm in GZB-2 through GZB-5, and up to 510-1000 ppm at GZB-1, and 1500 ppm in GZB-6. The moderately elevated levels occurred within the upper 12-feet of fill material. PHCs were only observed in the groundwater in GZB-1, and indicated a concentration of 18 ppm. It should be noted that sample GZB-1,S-3, obtained between 10-12 feet below grade, contained a piece of treated wood. It is possible that the treated wood may be an old creosote coated wood pile foundation.

7. Although an asbestos survey was not conducted at the site, observations indicate some of the pipes inside the 884-888 Washington Street building may be covered with asbestos-type insulation. On the basis of the observations made and information reviewed during our assessment of the site, as described above, it is GZA's opinion that the available evidence indicates that generally low to moderate levels of VOCs and PHCs are present in the soil and groundwater at the site. We recommend an asbestos survey be conducted prior to any demolition activities on this to evaluate disposal requirements and related health and safety issues.

Finally, it should be noted that MGL Chapter 21E requires the owner or operator of a site to notify DEP of a release or threat of release of oil or hazardous material to the environment. We recommend that you review the contents of this report with

legal counsel regarding the implications of the findings presented in this report. In particular, the legal implications of the findings presented in this report should be reviewed with regard to the Massachusetts Contingency Plan (MCP), which requires a phased approach, overseen by DEP, to evaluate the need for remediation. If the site is reported to DEP, the site may be listed as a LTBI and a Phase I - Limited Site Investigation Report may be required.

8.00 LIMITATIONS

GZA's site evaluation was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the environmental site evaluation. No other warranty, express or implied, is made. Specifically, GZA does not and cannot represent that the site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its site evaluation. This report is also subject to the specific limitations contained in Appendix A.

This study and report have been prepared on behalf of and for the exclusive use of ACDC, solely for use in an environmental evaluation of the site. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA. However, GZA acknowledges and agrees that the report may be conveyed to the Owner and potential Lenders associated with the proximate development of the site by our Client, to the extent set forth in our January 4, 1991 proposal.